

Appendix

Table 7: List of excluded instruments.

Instrument
3 Activities of Daily Living [1]
3D motion analysis [2]
6 activities of Daily Living [3]
Ability to hold 1 kg [4]
Action Imitation Test [5]
Activities of Daily Living Index [6]
Activity Scale for Kids [7]
ADL Questionnaire [8]
ADL task performance [9]
Arm function Questionnaire [10]
Arm Function Test [11]
Australian therapy Outcome Measure for Occupational Therapy [12]
Barthel Index [13]
Bean spooning test [5]
Box and Block Test [14]
Bruininks-Oseretsky Test of Motor Proficiency [15]
Burke-Fahn-Marsden Scale [16]
California Functional Evaluation 40 [17]
Caregivers Functional Use Survey [18]
Chart review [19]
Child/Toddler Arm Use Test [20]
Daily Finger Feeding Task [21]
Dexterity Questionnaire for ADL [5]
Direct observation of ADL [22]
Disabilities of Arm Shoulder and Hand [23]
Disability Assessment Scale [24]
Drinking from a glass test [25]
Edinburg Handedness Inventory [26]
Emergency Behavior scale [20]
Emory Functon Test [27]
Erhardst Development Prehension assessment [14]
Fine motor speed [28]
Fitt's Tapping task [29]
fMRI [30]
Forward reaching distance [31]
Frenchay Activities Index [32]
Function evaluation score [25]

Function Test [33]
Functional Ability Scale [34]
Functional Activities [35]
Functional grips [36]
Functional Independence Measure [37]
Functional Independence Measure for Children [38]
Functional limitation profile [39]
Functional Tasks [25]
Grasp & displace cylinders test [40]
Grasp and lift a 600 gr weight [1]
Hand Function Test [41]
Haptic Rehabilitation Exercises Performance Evaluation [42]
House Classification [43]
In Hand Manipulation Test [44]
Index of Extended Activities of Daily Living [45]
Interview about ADL activities [22]
Inventory of New Motor Activities and Programs [46]
Jacket Test [47]
Katz Adjustment Index [45]
Katz Index [48]
Key Turning Task [49]
Keyboard abilities [50]
Kinematics [51]
Klein Bell Activities of Daily Living Scale [52]
Knox Parent Questionnaire [53]
Kocaeli Functional Evaluation Test [54]
Lawton Instrumental Activities of Daily Living [55]
Level of assisted required on 5 self-selected ADL tasks [9]
Lindmark Motor Assessment Scale [56]
Line tracing task [57]
Manual Ability Classification System [58]
Maximum Grip Force (on key) [49]
Meal preparation test [27]
Measurements of Activities of Daily Living [59]
Minnesota Handwriting Assessment [15]
Minnesota rate of manipulation test [25]
Motor Activity Log Actual Quality of Use [60]
Motor Activity Log grade 5 (low functioning patients) [61]
Motor Activity Log Observation [62]
Motor Assessment Scale [63]
Motor Club Assessment [64]
Motor speed in grasping tasks (dexterous manipulation) [65]

Motor training task [9]
Motricity Index [66]
Movement assessment battery for children [67]
Movement speed task [25]
Mowery Classification [43]
Nine hole Peg test [66]
Northwick park dependency score [68]
Nottingham Extended Activities of Daily Living [69]
Nottingham health profile (part 1) [70]
Nottingham Leisure Questionnaire [45]
Nottingham Stroke Dressing Assessment [71]
Nuts and Bolts Test [29]
Observation reach [72]
Ontario society of occupational therapists test [25]
Passive Function Task [73]
Patient Specific Function Scale [74]
Peabody Developmental Motor Scale [75]
Pediatric Arm Function Test [46]
Pediatric Evaluation of Disability Inventory [76]
Pediatric Outcome Data Collection Instrument [77]
Pediatric Quality of Life Inventory for children with Cerebral Palsy [78]
Pegboard Test [79]
Pendulum Test [80]
Pennie Test [22]
Perceived problems [10]
Performance Assessment of Self-care Skills [81]
Performance of 21 ADL skills (videotaped) [82]
Performance Quality Rating Scale [83]
Pig Tail Test [84]
Prehension Task [85]
Problem Score [86]
Purdue peg test [87]
Reaching Performance Scale [88]
Reaching Test [89]
Rehabilitatio Activities Profile [90]
Rehabilitation Engineering Laboratory Hand Function Test [91]
Rehabilitation Institute of Chigaco's Functional Assessment Scale [72]
Rivermead Activities of Daily Living Scale [92]
Rivermead Motor Assessment [93]
Rotation task [94]
Self Report Change [95]
Sensorimotor integration test battery [27]

Shift task [94]
Sickness Impact Profile 68 [96]
Simple Test for Evaluation Hand Function [97]
Sodring Motor Evaluation of Stroke patients [98]
Sollerman Hand Function Test [99]
Southern California Motor Accuracy Test [100]
Stacking blocks test [22]
Stacking cubes test [101]
Strathclyde Upper Limb Activity Monitor [102]
Stroke Adapted Sickness Impact Profile 30 [103]
Stroke Impact Scale [104]
Stroke Rehabilitation Assessment of Movement [105]
Stroke Upper Limb Activity Monitor [106]
Structures Assessment of Independent Living Skills [107]
Subjective comment [27]
Systematic Test for Assessing Reaching Times [108]
Task Performance test [109]
Ten hole Peg test [110]
Test Task [111]
The active lifestyle: efficacy expectancies Scale [45]
The Neurological Rehabilitation Score [112]
The Older American Resources and Services Scale: Activities of daily living [45]
Time to ADL Milestone [27]
Timed Task with Shoelace [29]
Transfer of coins [113]
Trowing coin in slot [114]
Two-hand functions [36]
University of Maryland Arm Questionnaire for Stroke [115]
Upper Extremity Function ADL Category [116]
Upper extremity functional index [25]
Upper Limb (Basic) Functional Activity Questionnaire [66]
Upper limb disability score [113]
Upper Limb Physicians Rating Scale [117]
Video-observation [43]
Vineland Adaptrive Behavior Scale [58]
Visual Analogue Scale for ADL [24]
Williams Doors [118]

Table 8: Excluded instruments which fulfil the inclusion criteria, but were excluded based on exclusion criteria 3 (instrument is not uniquely used to assess AHSP).

Measurement instrument	Target population		# Items upper limb/total	ICF level(s) of the upper limb items			Tasks included		Activities of daily living included		Upper limb use			Reference		
	Stroke	CP		Function	Activity	Participation	Uni-manual	Bi-manual	Basic	Extended	AOU	QOU	Other description of use [†]	Validity	Reliability	Responsiveness
<i>Capacity</i>																
<i>Instruments containing one or more subscale(s) with only items about the upper extremity</i>																
	<i>Instruments including only items at ICF activity level</i>															
KB-ADL [52]	√		37/42	√			√	√	√	√		√		[52]	[52]	
	<i>Instruments combining items at ICF activity level with items at ICF function level</i>															
RMA [93]	√		18/38	√	√		√	√		√		√		[119]	[119]	[119]
SMES [98]	√		15/32	√	√		√	√	√			√		[120]	[121]	
<i>Instruments containing partly items about the upper extremity, but with only one total score, without a subscale for the upper extremity</i>																
	<i>Instruments including only items at ICF activity level</i>															
ADL Index [6]	√		10/17	√			√	√	√	√		√		[6]	[6]	
Katz index ADL [48]	√		4/6	√				√	√			√		[122]	[48]	
PASS [81]	√		18/26	√			√	√	√	√		√		[81]	[81]	
RADLS [92]	√		27/31	√			√	√	√	√		√		[92]	[92]	
	<i>Instruments combining items at ICF activity level with items at ICF function level</i>															
MAS [63]	√		3/9	√	√		√	√	√	√		√		[123]	[63]	[124]

NSDA [71]	√	Male:10/15 Female: 13/18	√ √	√	√	√	[71] [71]
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Perceived Performance

Instruments containing one or more subscale(s) with items only about the upper extremity

	<i>Instruments including only items at ICF activity level</i>						
FIM [37]	√	6/18	√	√ √	√	√	[125] [125] [125]
WeeFIM [38]	√	6/18	√	√ √	√	√	[126] [126] [127]
	<i>Instruments combining items at ICF activity level with items at ICF function level and/or participation level</i>						
AusTOMs-OT [12]	√	5/12	√ √ √	√ √	√ √	√	[128] [12] [12]
FAI [32]	√	13/15	√ √	√	√	√	[129] [130] [129]
NEADL [69]	√	17/22	√ √	√	√ √	√	[129] [69] [129]
Peds-QL- CP[78]	√	16/35	√ √	√ √	√ √	√	[78] [78] [78]
SA-SIP 30 [103]	√	7/30	√ √	√ √	√ √	√	[103] [103]
SIS [104]	√	19/65	√ √ √	√ √	√ √	√	[104] [104] [104]

Instruments containing partly items about the upper extremity, but with only one total score, without a subscale for the upper extremity

	<i>Instruments including only items at ICF activity level</i>						
BI [13]	√	5/10	√	√	√	√	[13] [13] [13]
	<i>Instruments combining items at ICF activity level with items at ICF function level and/or participation level</i>						
RAP [90]	√	8/21	√ √	√	√ √	√	[131] [132] [133]

‡ = This subcategory covers answers like “can be performed (yes/no)” or “independent performance (yes/no/partly)”; or descriptive answers like “How much effort does it take to perform the task?”.

CP = cerebral palsy; AOU = Amount of use; QOU = Quality of Use.

ADL Index = Activities of Daily Living Index; AusTOMs-OT = Australian therapy Outcome Measure for Occupational Therapy; BI = Barthel Index; FAI = Frenchay Activities Index; FIM = Functional Independence Measure; Katz Index ADL = Katz index of Independence in Activities of Daily Living; KB-ADL = Klein Bell Activities of Daily Living Scale; MAS = Motor Assessment Scale; NEADL = Nottingham Extended Activities of Daily Living; NSDA = Nottingham Stroke Dressing Assessment; PASS = Performance Assessment of Self-care Skills; PedsQL-CP = Pediatric Quality of Life Inventory for children with Cerebral Palsy; RADLS = Rivermead Activities of Daily Living Scale; RAP = Rehabilitation Activities Profile; RMA = Rivermead Motor Assessment; SA-SIP 30 = Stroke Adapted Sickness Impact Profile 30; SIS = Stroke Impact Scale; SMES = Sodrington Motor Evaluation of Stroke patients; WeeFIM = Functional Independence Measure for Children.

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